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Attorney Docket No. 979-141

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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In re Application of

Examiner:

Demia et al.

Group Art Unit:

Serial No.: 10/536,477

Filed: December 8, 2005

For: OPTICAL DETECTOR DEVICE FOR A METER

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PETITION TO REVIVE UNAVOIDABLY ABANDONED APPLICATION
UNDER 37 CFR 1.137(B)

Mail Stop Petitions

Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

SIR:

In connection with the above-referenced application, please enter the following Petition.

On May 3, 2009, upon review of the this application for transfer to new counsel, we reviewed our file and found that the last entry was an Amendment filed on January 28, 2008 in response to the Final Office Action dated August 27, 2007. To confirm status, we reviewed the U.S. Patent Office PAIR system, and learned that an Advisory Action was issued on March 20, 2008 and that subsequently a Notice of Abandonment was mailed on May 14, 2008. A review of the incoming mail log does not show relevant entries for either item in the months of March –June of 2008.

Applicant hereby files this Petition to Revive Unavoidably Abandoned Application

pursuant to 37 CFR 1.137(b).

As per 37 CFR 1.137(b)(1) the required submission, in this case an RCE, is enclose. As a courtesy, exhibit 1 is attached showing a copy of the January 28, 2008 Amendment to be considered with the RCE.

As per 37 CFR 1.137(b)(2), the required fee under 37 CFR 1.17(m) is enclosed.

As per 37 CFR 1.137(b)(3), Applicants respectfully submit that the entire delay in filing the required reply from the due date for the reply until the filing of a grantable petition pursuant to this paragraph was unintentional. Applicants at all times intended for the Amendment submitted on January 28, 2008 to be considered on the merits.

Applicants hereby file this Petition to Revive Unavoidable Abandoned Application and respectfully requests that the Abandonment be withdrawn and that the application proceed to issue.

Respectfully Submitted,

SOFER & HAROUN

By:


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Dated:



Docket No. 979-141

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s) : Demia et al.
Serial No. : 10/536,477
Filed : December 8, 2005
For : OPTICAL DETECTOR DEVICE FOR A METER

CERTIFICATE OF MAILING (37 C.F.R. 1.8a)

Mail Stop Petitions
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

I hereby certify that the attached Petition w/ one appendix, Certificate of Mailing, Check for \$1620.00
and Return Postcard along with any paper(s) referred to as being attached or enclosed and this Certificate
of Mailing are being deposited with the United States Postal Service on the date shown below with
sufficient postage as first-class mail in an envelope addressed to the: Commissioner for Patents, P.O.
Box 1450, Alexandria, V.A. 22313-1450.

Respectfully submitted,

SOFER & HAROUN, L.L.P.

By:

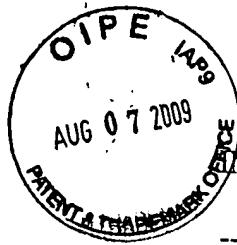
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APPENDIX



Attorney Docket No. 979-141

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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In re Application of

Examiner:

Demia et al.

Group Art Unit:

Serial No.: 10/536,477

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For: OPTICAL DETECTOR DEVICE FOR A METER

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AMENDMENT

Mail Stop AF

Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

SIR:

In connection with the above-referenced application, please enter the following amendments and remarks in response to the Final Office Action dated August 27, 2007. An RCE and Petition for Two Month Extension of Time are enclosed.

Amendments to the Specification begin on page 2 of the present invention.

Amendments to the Claims are reflected in the listing of Claims which begins on page 3 of this paper.

Amendments to the Drawings begin page 9 of this paper and include both an attached replacement sheet and an annotated sheet showing the changes.

Remarks begin on page 10 of this paper.

An **Appendix** including amended drawing figures is attached after page 14 of this paper.

Amendments to the Specification

Please replace the original title with the following amended title:

AN IMPROVED OPTICAL FLOW METER

Please replace original paragraph [0053] starting on line 30 of page 7 with the following amended paragraph [0053]:

[0053] As can be seen in figure 5, optical beam collimation devices 8, of lens type, may be inserted between the transparent wall 5A of module 5 and the optical elements 6A, 6B, 7, or they may be formed directly by the transparent wall 5A of module 5 configured as a collimation device. This collimator device 8 may comprise slits 9 to limit stray interference between light beams.

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1. (currently amended) Optical detector device for a meter, comprising:
a consumption indicator formed of a rotating target wherein said rotating target is
formed as a partial opaque disc ~~said partial opaque disc being substantially~~ formed in the
range of 45° to 225°, said partial disc being made of an opaque material; and
first and second optical emitter elements, for emitting first and second beams of
light;
first and second mirrors, said first mirror for reflecting said first beam of light and
said second mirror for reflecting said second beam of light, such that said reflected first
and second beams of light are both directed through a pathway of said rotating target to
only one an optical receiving element, wherein an
optical signal, formed by the receiving of said first and second beams of light, are
being processed to infer at least the number of rotations of said rotating target disc , and
wherein said first and second optical emitters and said optical receiving element are
substantially linearly arranged with said optical receiving element between said first and
second optical emitter elements.

2. (currently amended) Device as in claim 1, wherein said rotating target is
substantially a partial disc formed to 180°.

3. (cancelled).

4. (cancelled)

5. (previously presented) Device as in claim 1, further comprising a second optical receiving element for forming two pairs of an optical emitters and an optical receiving element each receiving element receiving the optical beam of the optical emitter in the same pair.

6. (previously presented) Device as in claim 1, wherein the two optical emitters operate sequentially.

7. (currently amended) Device as in claim 1, wherein the positioning of said optical emitters, optical receiving element and said first and second mirrors is such that the angle of incidence (B) of said first and second beams of light ~~the optical beams~~ emitted and then received by the optical receiving element is less than 60°.

8. (currently amended) Device as in claim 1, further comprising at least one collimator device positioned within the path of said first and second beams of light ~~optical beams~~.

9. (currently amended) Device as in claim 8, wherein said collimator device has slits limiting stray interference between said first and second beams of light beams.

10. (currently amended) Device as in claim 1, further comprising a third optical emitter whose trace on ~~the disc~~ said rotating target is centred on the axis of symmetry (A) of said rotating target ~~the disc, the disc~~ said rotating target being provided with a reflecting zone about this axis (A).

11. (currently amended) Fluid meter comprising:
said [[a]] rotating target disc that is coupled to said optical detector device as in claim 1, which is visible through a partly transparent wall in said fluid meter.

12. (cancelled)

13. (cancelled)

14. (new) Optical detector device for a meter, comprising:
a consumption indicator formed of a rotating target wherein said rotating target is a partial disc formed in the range of 45° to 225°, said partial disc being made of an opaque material; and
first and second optical emitter elements, for emitting first and second beams of light;

first and second mirrors, said first mirror for reflecting said first beam of light and said second mirror for reflecting said second beam of light, such that said reflected first and second beams of light are both directed through a pathway of said rotating target to only one optical receiving element, wherein an

optical signal, formed by the receiving of said first and second beams of light, being processed to infer at least the number of rotations of said rotating target, and wherein the positioning of said optical emitters, optical receiving element and said first and second mirrors is such that the angle of incidence (B) of said first and second beams of light emitted and then received by the optical receiving element is less than 60°.

15. (new) Device as in claim 14, wherein said rotating target is a partial disc formed to 180°.

16. (new) Device as in claim 14, further comprising a second optical receiving element for forming two pairs of an optical emitters and an optical receiving element each receiving element receiving the optical beam of the optical emitter in the same pair.

17. (new) Device as in claim 14, wherein the two optical emitters operate sequentially.

18. (new) Device as in claim 14, further comprising at least one collimator device positioned within the path of said first and second beams of light.

19. (new) Device as in claim 18, wherein said collimator device has slits limiting stray interference between said first and second beams of light.

20. (new) Optical detector device for a meter, comprising:
a consumption indicator formed of a rotating target wherein said rotating target is a partial disc formed in the range of 45° to 225°, said partial disc being made of an opaque material; and
first and second optical emitter elements, for emitting first and second beams of light;
first and second mirrors, said first mirror for reflecting said first beam of light and said second mirror for reflecting said second beam of light, such that said reflected first and second beams of light are both directed through a pathway of said rotating target to only one optical receiving element, wherein an optical signal, formed by the receiving of said first and second beams of light, being processed to infer at least the number of rotations of said rotating target, and wherein said optical detector further includes a third optical emitter whose trace on said rotating target is centred on the axis of symmetry (A) of said rotating target, said rotating target being provided with a reflecting zone about this axis (A).

21. (new) Device as in claim 20, wherein said rotating target is a partial disc formed to 180°.

22. (new) Device as in claim 20, wherein said first and second optical emitters operate sequentially.

23. (new) Device as in claim 20, further comprising at least one collimator device positioned within the path of said first and second beams of light.

24. (new) Device as in claim 23, wherein said collimator device has slits limiting stray interference between said first and second beams of light.

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Amendment Dated January 14, 2008
Reply to Office Action Dated August 27, 2007

Amendments to the Drawings

The attached sheet of drawings includes changes to Figure 5. This sheet 3/5, which includes Figure 4 and 5, replaces the original sheet 3/5 which includes figures 4 and 5. In Figure 5, the previously omitted item 9 has been added.

Attachments; Replacement Sheet

Annotated Sheet Showing Changes

Remarks

Claims 1-2, 4-11 and 13 are pending.

Claims 1-2, 4-11 and 13 stand rejected.

Claims 1, 2 and 7-11 have been amended.

Claims 4 and 13 have been cancelled without prejudice.

Claims 14-24 have been added.

Claims 1-2, 5-11 and 14-24 are submitted herein for review.

No new matter has been added.

In paragraph 1 of the Office Action, the Examiner has objected to the Figures and claim 9, because the optical collimator device having slits is not shown in the drawings. Applicants have amended Figure 5 and corresponding paragraph [0053] of the specification to show slits 9 in the collimator device. Such amendments to the specification and Figure 5 do not constitute new matter because the slits 9 in collimator device 8 were adequately described in the application as filed in both originally filed claim 9, and paragraph [0018] (beginning on line 21 of page 3) of the specification. In view of these amendments, Applicants request that these objections be withdrawn.

In paragraph 2 of the Office Action, the Examiner has objected to the title of the application for being non-descriptive. Applicants have amended the title to read "An improved optical flow meter," and respectfully request that this objection be withdrawn.

In paragraphs 4 and 6 of the Office Action, the Examiner has issued several technical rejections of the claims under 35 U.S.C. § 112. Applicants have amended or cancelled the claims accordingly and respectfully request that these rejections be withdrawn. Applicants note that the rotating target is a partial disc, meaning that it is a

disc that is an incomplete circle. In particular, the rotating target is an incomplete circle that is formed in the range of 45° to 225° of a complete circle. Furthermore, the rotating target, which is a partial disc, is made from an opaque material.

Turning to the substantive rejections, the Examiner has rejected the claims under 35 U.S.C. § 103(a) as being unpatentable over Bashem et al. (U.S. Patent No. 4,345,480) in view of Ohmura et al. (U.S. Patent Publication No. 2004/0004181). In particular, the Examiner argues that Bashem teaches all of the elements of the present invention except for the mirrors, but that such an element is shown in Ohmura and that it would have been obvious to combine the teachings of these references to arrive at the present invention as claimed.

Applicants disagree with the Examiner and submit the following remarks in response.

The present invention as claimed in independent claim 1 is directed to an optical detector device for a meter having a consumption indicator formed of a rotating target which is a partial disc formed in the range of 45° to 225°, where the disc is made of an opaque material. The optical detector device has first and second optical emitter elements for emitting first and second beams of light as well as first and second mirrors for reflecting said first and second beams of light respectively, such that the reflected first and second beams of light are both directed through a pathway of the rotating target to only one optical receiving element.

An optical signal is formed by the receiving of the first and second beams of light, processed to infer at least the number of rotations of the rotating target. The first and second optical emitters and the optical receiving element are substantially linearly arranged with the optical receiving element between the first and second optical emitter elements.

Such an arrangement, by placing the first and second emitters and the receiving element in a linear manner, allows for the overall dimensions of the optical detector device to be limited in size.

The cited Bashem reference teaches an optical detector device for a bore hole flow meter. The indicator includes a rotating element 46 and two emitters 43A and 44A where the processing of the beams emitted by the two emitter is used to measure the number of rotations of element 46.

The cited Ohmura reference teaches a photoelectric rotary encoder that includes a rotating element 6 with a pattern 24. Beam 101 is emitted into a returning section 5 that reflects the beam back to a photodetector 12.

However, there is no teaching or suggestion in either the Basham or in Ohmura, either alone or in combination with one another, that disclose the first and second optical emitters and the optical receiving element being substantially linearly arranged with the optical receiving element between the first and second optical emitter elements.

For at least this reason, Applicants submit that the cited prior art does not show all of the elements of independent claim 1, and respectfully request that the rejection of this claim be withdrawn. Likewise, as claims 2 and 5-11 depend from claim 1, these claims should be allowed for at least the same reason.

Turning to new independent claim 14, this claim also is directed to an optical detector device for a meter having a consumption indicator formed of a rotating target. The optical detector device has first and second optical emitter elements, first and second mirrors and an optical receiving element. An optical signal is formed by the receiving of beams of light from the emitters, processed to infer at least the number of rotations of the rotating target. The positioning of the optical emitters, optical receiving element and the first and second mirrors is such that the angle of incidence (B) of the first and second

beams of light emitted and then received by the optical receiving element is less than 60°.

There is no teaching or suggestion in either the Basham or in Ohmura, either alone or in combination with one another, that disclose the positioning of the optical emitters, optical receiving element and the first and second mirrors, such that the angle of incidence (B) of the first and second beams of light emitted and then received by the optical receiving element is less than 60°.

For at least this reason, Applicants submit that the cited prior art does not show all of the elements of independent claim 14, and respectfully request that the prior rejections not be carried over to this new independent claim. Likewise, as claims 15-19 depend from claim 14, these claims should be allowed for at least the same reason.

Regarding new independent claim 20, this claim also is directed to an optical detector device for a meter having a consumption indicator formed of a rotating target. The optical detector device has first and second optical emitter elements, first and second mirrors and an optical receiving element. An optical signal is formed by the receiving of beams of light from the emitters, processed to infer at least the number of rotations of the rotating target. The optical detector further includes a third optical emitter whose trace on the rotating target is centred on the axis of symmetry (A) of the rotating target, the rotating target is provided with a reflecting zone about this axis (A).

There is no teaching or suggestion in either the Basham or in Ohmura, either alone or in combination with one another, that disclose the optical detector further includes a third optical emitter whose trace on the rotating target is centred on the axis of symmetry (A) of the rotating target, the rotating target is provided with a reflecting zone about this axis (A).

For at least this reason, Applicants submit that the cited prior art does not show all of the elements of independent claim 20, and respectfully request that the prior rejections

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not be carried over to this new independent claim. Likewise, as claims 21-24 depend from claim 14, these claims should be allowed for at least the same reason.

In view of the foregoing, Applicants respectfully submit that pending claims 1-2, 5-11 and 14-24 are in condition for allowance, the earliest possible notice of which is earnestly solicited. If the Examiner feels that an interview would facilitate the prosecution of this Application they are invited to contact the undersigned at the number listed below.

Respectfully submitted,

SOFER & HAROUN, L.L.P.

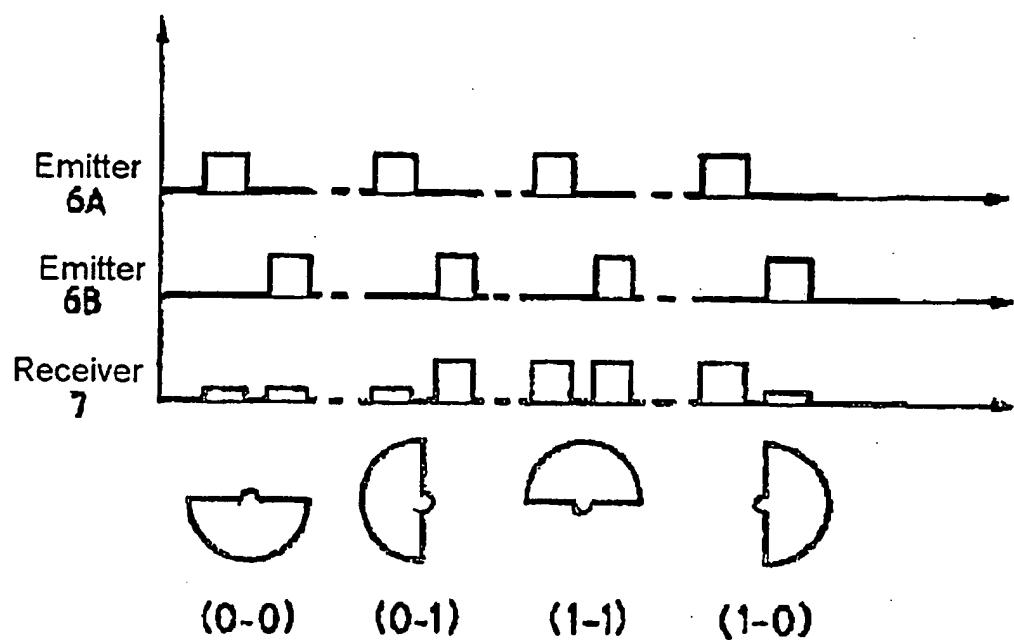
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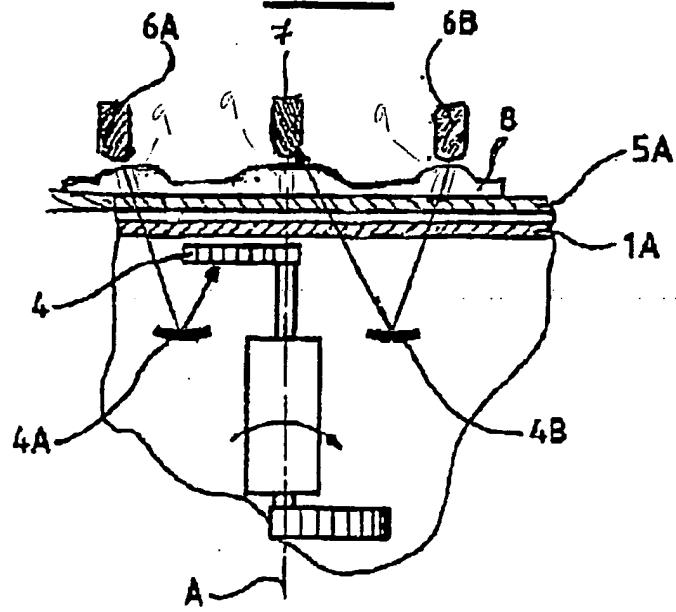
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APPENDIX

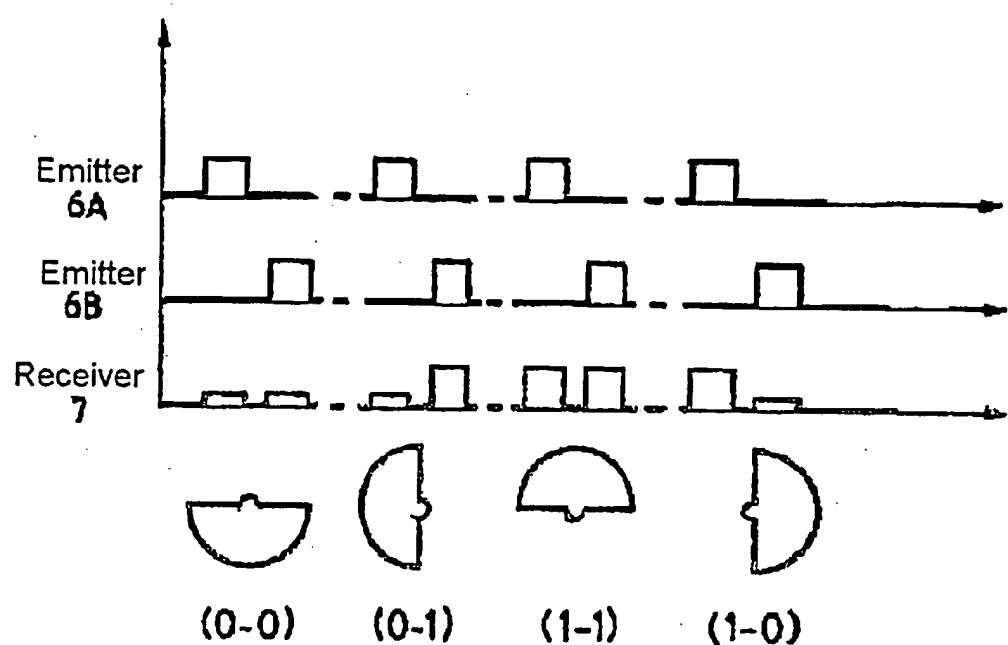
FIG_4



FIG_5



FIG_4



FIG_5

